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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,234

01/31/2007

Yoshihiro Akai

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EXAMINER

WONG, TINA MEI SENG

ART UNIT

PAPER NUMBER

2874

MAIL DATE

DELIVERY MODE

10/24/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/595,234	AKAI ET AL.	
	Examiner	Art Unit	
	Tina M. Wong	2874	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6,7 and 9-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6,7 and 9-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This Office action is responsive to Applicant's response submitted 27 August 2008.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,936,695 to Hida et al.

Hida et al teaches a liquid crystal panel comprising a specified figure (271, 273, 371, 373) that is formed on one side of one substrate, sealing material (501) that is applied to provide a liquid crystal encapsulation opening (511, 521) in the vicinity of the specified figure; a second substrate whose side is joined to the first substrate by means of the sealing material, liquid crystal material that is encapsulated between the pair of substrates (100, 300), and a closing member for closing the liquid crystal encapsulation opening (551, 553). Hida et al further teaches the specified figure to consist of two lines that extends in parallel with one edge of the liquid crystal encapsulation opening and are arranged between two points of the sealing material.

But Hida et al fails to explicitly state for the sealing material applied to the first substrate to have a start and end point at predetermined positions with respect to a specified figure. However, the start and end point of the sealing material could be any arbitrary point within the gap between the first and second substrates of Hida et al. Furthermore, the term "predetermined

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position" does not clearly define or point to a specific position along the sealing material.

Therefore, one can reasonably construe any point to be a predetermined position as long as it is determined ahead of time. Since liquid crystal panels are generally formed in an assembly format, it would be wise for one of ordinary skill to predetermine a starting and ending position in order to simplify manufacturing. Further, since Hida et al can reasonably be interpreted to include a sealing material applied to the first substrate to have a start and end point at predetermined positions with respect to a specified figure, it can then be identified in Figure 1 a space between two arbitrary points to provide a liquid crystal encapsulation opening in the vicinity.

Claims 1, 3, 4, 6, 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,936,695 to Hida et al in view of U.S. Patent 6,844,911 to Lee.

In regards to claim 1, 4 and 10, Hida et al teaches a process for manufacturing a liquid crystal panel wherein liquid crystal is filled between a pair of substrates, comprising the following steps:

- marking a specified figure (271, 273, 371, 373) on one of the substrates
- forming a seal pattern (gap formed by the two substrates) on the substrate marked with the specified figure
- detecting (701, 702) the specified figure on one such substrate, applying sealing material (501) between two points according to a predetermined pattern, and providing a liquid crystal encapsulation opening (511, 521) in the vicinity of marking

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- joining one substrate (100) with the other substrate (300) as to be paired together
- injecting liquid crystal material through the liquid crystal encapsulation opening of the pair of substrates thus obtained and
- closing the liquid crystal encapsulation opening (551, 553).

But Hida et al fails to specifically teach cutting the joined substrates to obtain the pair of substrates. However, Lee teaches a similar process for manufacturing a liquid crystal panel. Lee applies the prior art teachings of Hida as well as incorporates newer technology to manufacture multiple panels on a single substrate, thereby saving time and manufacturing costs. Lee further teaches an additional sealing material in order to protect from unwanted stray material while cutting the substrate into multiple pieces. Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have cut the joined substrates to obtain a pair as taught by Lee in order to save cost and time as well as further advance the liquid crystal technology.

Further, Hida et al fails to explicitly state for the sealing material applied to the first substrate to have a start and end point at predetermined positions with respect to a specified figure. However, the start and end point of the sealing material could be any arbitrary point within the gap between the first and second substrates of Hida et al. Furthermore, the term "predetermined position" does not clearly define or point to a specific position along the sealing material. Therefore, one can reasonably construe any point to be a predetermined position as long as it is determined ahead of time. Since liquid crystal panels are generally formed in an assembly format, it would be wise for one of ordinary skill to predetermine a starting and ending position in order to simplify manufacturing. Further, since Hida et al can reasonably be

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interpreted to include a sealing material applied to the first substrate to have a start and end point at predetermined positions with respect to a specified figure, it can then be identified in Figure 1 a space between two arbitrary points to provide a liquid crystal encapsulation opening in the vicinity of the specified figure.

In regards to claims 3, 6 and 11, Hida et al teaches the specified figure to consist of two lines that extends in parallel with one edge of the liquid crystal encapsulation opening and are arranged between both ends of the sealing material.

Response to Arguments

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tina M. Wong whose telephone number is (571)272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rodney Bovernick can be reached on (571) 272-2344. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tina M Wong/
Primary Examiner, Art Unit 2874